

IST 659 Lab 7 SQL III

Instructions

Business Case (this is the same case you have worked on for labs 4, 5 and 6)

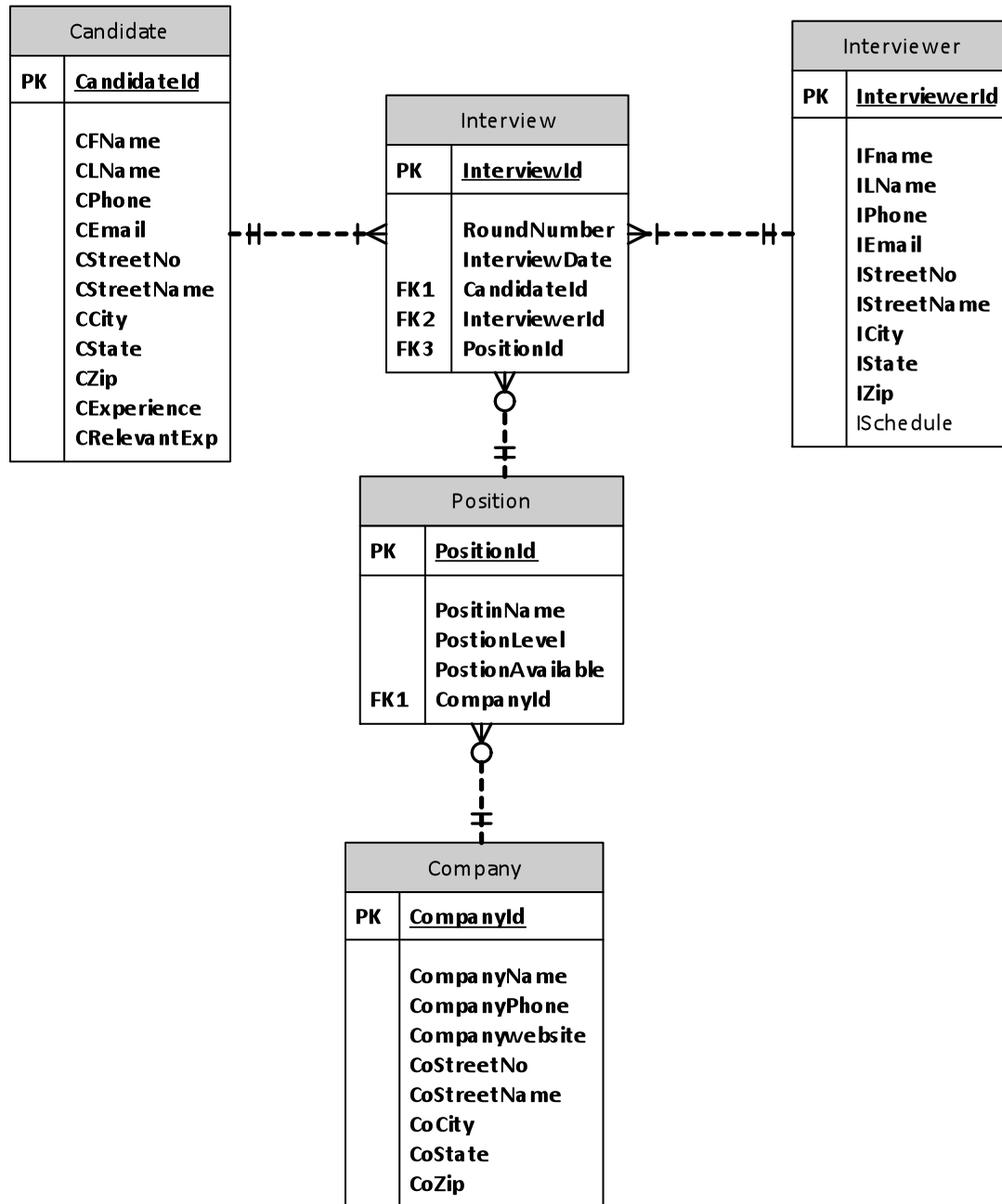
Career Services of our school wants to keep a track of all interviews (positions, candidates, company, and interviewer) that take place. They want to keep track of all the companies, the potential candidates, interviewer, positions available at companies etc. Sometimes the career services needs to contact the companies for verification or other inquiries. We need to build a database that would assist the career services in recording this information.

In this database system, each company and candidate will have their own profiles which include their names and contact information such as phone numbers, postal addresses. Candidates would need to provide information about their primary Experience domain, and relevant experience. Interviewers may or may not provide their office hour information. The schedule or office hour information should be a text describing when the interviewer's office is open, e.g. 9am-5pm Monday – Thursday.

An interviewer can conduct one or multiple interviews of candidates. A candidate can have one or more interviews. Each interview must have an interview date and round number along with information about the Candidate (CandidateId) and Interviewer (InterviewerId).

The database should also maintain information about the positions a company is looking to hire for. Details about position level, and position name should also be given. Information about whether the position is still available or not should also be stored in the database (this field will be either “yes” or “no”).

In this lab we have already created the ERD model for the career services database (see below).



Lab 7 instruction

Imagine you are hired to design a new database to support this platform. In lab 4 you have created and populated the tables. In lab 5 you have revised the tables and written queries to answer easy data questions. In lab 6 you wrote complex queries to join two or more tables to answer data questions. In this lab you are also going to create views and transactions.

Before you begin writing SQL statements add additional data into Candidate, Interviews, Interviewer, Position and Company table by executing the following SQL statement:

```

--INSERT MORE DATA INTO CANDIDTAE, INTERVIEWER, POSITION, COMPANY AND
INTERVIEW ITEM TABLES

-- Insert into Candidate table
INSERT INTO Candidate (CandidateId, CFName, CLName, CPhone, CStreetNo,
CStreetName, CCity, CState, CZip, CExperience, CRelExperience)
VALUES (6, 'Robinson', 'Curt', '315-555-6666', '12', 'Ostrom Ave', 'Los
Angeles', 'CA', '90205', 'Database, Business Analysis', 'Business Analysis')
INSERT INTO Candidate (CandidateId, CFName, CLName, CPhone, CStreetNo,
CStreetName, CCity, CState, CZip, CExperience, CRelExperience)
VALUES (7, 'Austin', 'Byron', '805-280-2018', '54', 'Skyline Blvd',
'Oakland', 'CA', '94620', 'Consultant, Developer', 'Consultant')
INSERT INTO Candidate (CandidateId, CFName, CLName, CPhone, CStreetNo,
CStreetName, CCity, CState, CZip, CExperience, CRelExperience)
VALUES (8, 'Tin', 'Chung', '315-685-8898', '69', 'Comstock Ave', 'Paperwork
City', 'CA', '94645', 'Developer, Business Analysis', 'Developer')
INSERT INTO Candidate (CandidateId, CFName, CLName, CPhone, CStreetNo,
CStreetName, CCity, CState, CZip, CExperience, CRelExperience)
VALUES (9, 'Cassandra', 'Alvarado', '315-555-8888', '1348', 'Elm St.',
'Denver', 'CO', '80012', 'Database, Business Analysis', 'Database')
INSERT INTO Candidate (CandidateId, CFName, CLName, CPhone, CStreetNo,
CStreetName, CCity, CState, CZip, CExperience, CRelExperience)
VALUES (10, 'Beverly', 'Baker', '315-556-9999', '4387', 'College Drive',
'Dayton', 'OH', '45404', 'Database, Business Analysis, Developer, Analyst',
'Database')

--Insert into Interviewer table

INSERT INTO Interviewer (InterviewerId, IFName, ILName, IPhone, IEmail,
IStreetNo, IStreetName, ICity, IState, IZip, ISchedule)
VALUES (6, 'Toshiro', 'Yamada', '315-666-2584', 'toshiroyamada@syr.edu',
'137', 'Geary Blvd.', 'San Francisco', 'CA', '94111', '9am-5pm Monday -
Friday')

INSERT INTO Interviewer (InterviewerId, IFName, ILName, IPhone, IEmail,
IStreetNo, IStreetName, ICity, IState, IZip)
VALUES (7, 'Gerald', 'Bernstein', '315-777-1115',
'gearaldbernstein@syr.edu', '717', 'Wilshire Blvd.', 'Los Angeles', 'CA',
'90048')

INSERT INTO Interviewer (InterviewerId, IFName, ILName, IPhone, IEmail,
IStreetNo, IStreetName, ICity, IState, IZip, ISchedule)
VALUES (8, 'Rose', 'Barbara', '315-888-8881', 'rosebarbara@syr.edu', '957',
'Wilshire Blvd.', 'Los Angeles', 'CA', '90048', '8am-6pm Monday - Saturday')

INSERT INTO Interviewer (InterviewerId, IFName, ILName, IPhone, IEmail,
IStreetNo, IStreetName, ICity, IState, IZip)
VALUES (9, 'Steven', 'Bernstein', '315-999-9991', 'stevenbernstein@syr.edu',
'5152', 'Rural Route 12', 'Searchlight', 'NV', '89046')

INSERT INTO Interviewer (InterviewerId, IFName, ILName, IPhone, IEmail,
IStreetNo, IStreetName, ICity, IState, IZip, ISchedule)
VALUES (10, 'Shawn', 'Micheal', '315-101-1010', 'shawnmicheal@syr.edu',
'258', '1st St. NE', 'St. Paul', 'MN', '55111', '9:30am-5:30pm Monday -
Friday')

--Insert into Company table

```

```
INSERT INTO Company (CompanyId, CompanyName, CompanyPhone, CompanyWebsite,
CoStreetNo, CoStreetName, CoCity, CoState, CoZip)
VALUES (6, 'Google', '300-000-0000', 'www.google.com', '873', 'Lafayette
Rd', 'Mountain View', 'CA', '13205')
```

```
INSERT INTO Company (CompanyId, CompanyName, CompanyPhone, CompanyWebsite,
CoStreetNo, CoStreetName, CoCity, CoState, CoZip)
VALUES (7, 'SAS', '311-111-1111', 'www.SAS.com', '456', 'Summer Ave',
'Cary', 'NC', '81000')
```

```
INSERT INTO Company (CompanyId, CompanyName, CompanyPhone, CompanyWebsite,
CoStreetNo, CoStreetName, CoCity, CoState, CoZip)
VALUES (8, 'NetApp', '315-333-4787', 'www.netapp.com', '791', 'Maryland
Ave', 'Sunnyvale', 'CA', '13801')
```

```
INSERT INTO Company (CompanyId, CompanyName, CompanyPhone, CompanyWebsite,
CoStreetNo, CoStreetName, CoCity, CoState, CoZip)
VALUES (9, 'Edward Jones', '315-444-5677', 'www.edwardjones.com', '437',
'Lanchaster Ave', 'St. Loius', 'MO', '79147')
```

```
INSERT INTO Company (CompanyId, CompanyName, CompanyPhone, CompanyWebsite,
CoStreetNo, CoStreetName, CoCity, CoState, CoZip)
VALUES (10, 'Qualcomm', '315-479-5182', 'www.qualcomm.com', '825',
'Ackerman Street', 'Weston', 'FL', '45071')
```

```
--Insert into Position table
```

```
INSERT INTO Position (PositionId, PositionName, PositionLevel,
PositionAvailable, CompanyId)
VALUES (3, 'Database Analyst', 'Executive', 'yes', '2')
```

```
INSERT INTO Position (PositionId, PositionName, PositionLevel,
PositionAvailable, CompanyId)
VALUES (4, 'Risk Manager', 'Executive', 'no', '3')
```

```
INSERT INTO Position (PositionId, PositionName, PositionLevel,
PositionAvailable, CompanyId)
VALUES (6, 'Software Developer', 'Entry', 'yes', '6')
```

```
INSERT INTO Position (PositionId, PositionName, PositionLevel,
PositionAvailable, CompanyId)
VALUES (7, 'Business Analyst', 'Entry', 'yes', '6')
```

```
INSERT INTO Position (PositionId, PositionName, PositionLevel,
PositionAvailable, CompanyId)
VALUES (8, 'Database Administrator', 'Executive', 'yes', '7')
```

```
INSERT INTO Position (PositionId, PositionName, PositionLevel,
PositionAvailable, CompanyId)
VALUES (9, 'Technical Manager', 'Executive', 'no', '8')
```

```
INSERT INTO Position (PositionId, PositionName, PositionLevel,
PositionAvailable, CompanyId)
VALUES (10, 'Advisory Associate', 'Staff', 'yes', '9')
```

```

INSERT INTO Position (PositionId, PositionName, PositionLevel,
PositionAvailable, CompanyId)
VALUES (11, 'Project Manager', 'Entry', 'no', '10')

INSERT INTO Position (PositionId, PositionName, PositionLevel,
PositionAvailable, CompanyId)
VALUES (12, 'Project Manager', 'Managerial', 'no', '10')

--Insert into Interview table
INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (6,2,'2013-05-07 00:00:00.000',6,7,6);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (7,1,'2013-04-28 00:00:00.000',7,7,7);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (8,3,'2013-10-07 00:00:00.000',8,8,8);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (9,5,'2013-10-17 00:00:00.000',9,9,9);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (10,2,'2013-06-07 00:00:00.000',6,7,12);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (11,1,'2013-08-08 00:00:00.000',7,7,11);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (12,3,'2013-10-07 00:00:00.000',10,8,5);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (13,5,'2013-8-18 00:00:00.000',10,9,9);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (14,2,'2013-06-28 00:00:00.000',5,7,6);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (15,1,'2013-07-27 00:00:00.000',3,8,9);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (16,3,'2013-01-06 00:00:00.000',6,8,12);

INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (17,1,'2013-10-17 00:00:00.000',6,9,9);

```

```
INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (18,2,'2013-06-07 00:00:00.000',4,7,12);
```

```
INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (19,1,'2013-08-08 00:00:00.000',2,10,11);
```

```
INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (20,2,'2013-10-7 00:00:00.000',10,8,5);
```

```
INSERT INTO Interview(InterviewId, RoundNumber, InterviewDate, CandidateId,
InterviewerId, PositionId)
VALUES (21,2,'2013-6-17 00:00:00.000',10,9,9);
```

After executing the above statements, the 3 tables should have the following data:

Candidate:

CandidateId	CFName	CLName	CPhone	CStreetNo	CStreetName	CCity	CState	CZip	CExperience	CRelExperience	CMName
1	Nathan	Kerr	315-555-5555	112	Lafayette Rd	Syracuse	NY	13205	Database, Business Analysis	Database	NULL
2	Sebastian	Chapman	315-555-6666	17	James St	Syracuse	NY	13210	Consultant, Business Analysis	Consultant	NULL
3	Heather	Cameron	315-555-7777	410	Comstock Ave	Syracuse	NY	13210	Developer, Business Analysis	Developer	NULL
4	Olivia	Wallace	315-555-8888	4248	Nottingham Rd	Syracuse	NY	13244	Database, Business Analysis	Database	NULL
5	Lily	Turner	315-556-9999	3	Ostrom Ave	Syracuse	NY	13225	Database, Business Analysis, Developer, Analyst	Database	NULL
6	Robinson	Curt	315-555-6666	12	Ostrom Ave	Los Angeles	CA	90205	Database, Business Analysis	Business Analysis	NULL
7	Austin	Byron	805-280-2018	54	Skyline Blvd	Oakland	CA	94620	Consultant, Developer	Consultant	NULL
8	Tin	Chung	315-685-8898	69	Comstock Ave	Papenwork City	CA	94645	Developer, Business Analysis	Developer	NULL
9	Cassandra	Alvarado	315-555-8888	1348	Elm St.	Denver	CO	80012	Database, Business Analysis	Database	NULL
10	Beverly	Baker	315-556-9999	4387	College Drive	Dayton	OH	45404	Database, Business Analysis, Developer, Analyst	Database	NULL

Query executed successfully. | ist-s-students.syr.edu (10.... | smbaxi6591 (63) | smbaxi6591 | 00:00:00 | 10 rows

Interviewer:

InterviewerId	IFName	ILName	IPhone	IEmail	IStreetNo	IStreetName	ICity	IState	IZip	ISchedule	IMName
1	Dorothy	Paige	315-555-0126	dorothy.paige@syr.edu	137	Sumner Ave	Syracuse	NY	13210	9am-5pm Monday - Friday	NULL
2	Amy	May	315-5555	amy.may@syr.edu	777	Ackerman Ave	Syracuse	NY	13210	NULL	NULL
3	Charles	Duncan	315-400-5000	charles.duncan@syr.edu	345	Lancaster Ave	Syracuse	NY	13210	8am-6pm Monday - Saturday	NULL
4	Victor	Miller	315-333-5565	victor.miller@syr.edu	7116	Lafayette Rd	Syracuse	NY	13205	NULL	NULL
5	Ray	Mysterio	315-129-5677	raymesterio@syr.edu	234	Lafayette Rd	Syracuse	CA	13205	9:30am-5:30pm Monday - Friday	NULL
6	Toshiro	Yamada	315-666-2584	toshiroyamada@syr.edu	137	Geary Blvd.	San Francisco	CA	94111	9am-5pm Monday - Friday	NULL
7	Gerald	Bernstein	315-777-1115	gearaldbernstein@syr.edu	717	Wilshire Blvd.	Los Angeles	CA	90048	NULL	NULL
8	Rose	Barbara	315-888-8881	rosebarbara@syr.edu	957	Wilshire Blvd.	Los Angeles	CA	90048	8am-6pm Monday - Saturday	NULL
9	Steven	Bernstein	315-999-9991	stevenbernstein@syr.edu	5152	Rural Route 12	Searchlight	NV	89046	NULL	NULL
10	Shawn	Micheal	315-101-1010	shawnmicheal@syr.edu	258	1st St. NE	St. Paul	MN	55111	9:30am-5:30pm Monday - Friday	NULL

Query executed successfully. | ist-s-students.syr.edu (10.... | smbaxi6591 (63) | smbaxi6591 | 00:00:00 | 10 rows

Company:

Results Messages									
	CompanyId	CompanyName	CompanyPhone	CompanyWebsite	CoStreetNo	CoStreetName	CoCity	CoState	CoZip
1	1	Ernst & Young	315-129-5677	www.ey.com	234	Lafayette Rd	New York	New York	13205
2	2	Deloitte	315-356-5887	www.deloitte.com	456	Summer Ave	New York	New York	13100
3	3	PWC	315-894-4787	www.pwc.com	791	Maryland Ave	New York	New York	13801
4	4	KPMG	315-129-5677	www.kpmg.com	437	Lanchaster Ave	New York	New York	12147
5	5	Cognizant	315-479-5182	www.cognizant.com	825	Ackeman Street	New York	New York	10071
6	6	Google	300-000-0000	www.google.com	873	Lafayette Rd	Mountain View	CA	13205
7	7	SAS	311-111-1111	www.SAS.com	456	Summer Ave	Cary	NC	81000
8	8	NetApp	315-333-4787	www.netapp.com	791	Maryland Ave	Sunnyvale	CA	13801
9	9	Edward Jones	315-444-5677	www.edwardjones.com	437	Lanchaster Ave	St. Louis	MO	79147
10	10	Qualcomm	315-479-5182	www.qualcomm.com	825	Ackeman Street	Weston	FL	45071

Query executed successfully.

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Position:

Results Messages					
	PositionId	PositionName	PositionLevel	PositionAvailable	CompanyId
1	1	Techology Analyst	Internship	yes	1
2	2	Business Analyst	Entry	yes	1
3	3	Database Analyst	Executive	yes	2
4	4	Risk Manager	Executive	no	3
5	5	Advisory Consultant	Staff	yes	4
6	6	Software Developer	Entry	yes	6
7	7	Business Analyst	Entry	yes	6
8	8	Database Administrator	Executive	yes	7
9	9	Technical Manager	Executive	no	8
10	10	Advisory Associate	Staff	yes	9
11	11	Project Manager	Entry	no	10
12	12	Project Manager	Managerial	no	10

Query executed successfully.

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Interview:

Results		Messages				
InterviewId	RoundNumber	InterviewDate	CandidateId	InterviewerId	PositionId	
1	1	2013-09-27 00:00:00.000	1	1	1	
2	2	2013-09-28 00:00:00.000	2	2	2	
3	3	2013-09-17 00:00:00.000	3	3	1	
4	4	2015-02-11 21:27:13.530	1	2	1	
5	5	2013-09-17 00:00:00.000	5	5	5	
6	6	2013-05-07 00:00:00.000	6	7	6	
7	7	2013-04-28 00:00:00.000	7	7	7	
8	8	2013-10-07 00:00:00.000	8	8	8	
9	9	2013-10-17 00:00:00.000	9	9	9	
10	10	2013-06-07 00:00:00.000	6	7	12	
11	11	2013-08-08 00:00:00.000	7	7	11	
12	12	2013-10-07 00:00:00.000	10	8	5	
13	13	2013-08-18 00:00:00.000	10	9	9	
14	14	2013-06-28 00:00:00.000	5	7	6	
15	15	2013-07-27 00:00:00.000	3	8	9	
16	16	2013-01-06 00:00:00.000	6	8	12	
17	17	2013-10-17 00:00:00.000	6	9	9	
18	18	2013-06-07 00:00:00.000	4	7	12	
19	19	2013-08-08 00:00:00.000	2	10	11	
20	20	2013-10-07 00:00:00.000	10	8	5	
21	21	2013-06-17 00:00:00.000	10	9	9	

Query executed successfully.

ist-s-students.syr.edu (10... | smbaxi6591 (63) | smbaxi6591 | 00:00:00 | 21 rows

Now, please write SQL statements to finish the following tasks:

1. Views: create views based on the following requirements
 - a) interviews_summary: for all the candidates, find their interviews and the corresponding interviewers. This view should show the candidate ID, candidate name, interview ID, interviewer ID, and interviewer name.
 - b) position_summary: find the total number of positions available for each company in the second half of 2013 (Jul, Aug, Sep, Oct, Nov, Dec).
 - c) maximum_candidate_interview_summary: find the candidate who had the largest number of interviews.
 - d) minimum_interviewer_prescription_summary: find the interviewer who had the lowest number of interviews.
 - e) position_interview_summary: find the position for which the largest number of interviews were conducted.
2. Create two transactions:
 - a) Create a new interview for a new candidate. New rows should be inserted into the tables Candidate, Interview, and Position.

Step 1: create a new candidate record whose first name is "Shah", last name is "Kantilal", and phone number is "315-525-2552". His address is "193 Lancaster Ave, Syracuse, New York, 13210". Candidate experience is in "Database and Development" and Relevant Experience is in "Database Administration". He was interviewed on "2013-11-08 00:00:00.000" for his 1st round of interview for

“Database Developer” position at Google. Position level is “Entry” and position is available. His interviewer was “Rose Barbara”.

Step 2: display records from Candidate, Interview, and Position table.

Step 3: ROLLBACK transaction.

Step 4: display records from Candidate, Interview, and Position table.

- b) Add a new position for a company. New rows should be inserted into the tables Company, Position and Interview.

Step 1: create a new record for the company “Apple”. The company has a website URL www.apple.com and company phone is “400-000-1212”. Company Headquarters’ address is “1 Infinite Loop Cupertino, CA 95014”. The position they are hiring for is “Program Analyst” which is a “Staff” position. The 1st round of interviews were conducted for 3 candidates on “2013-11-01 00:00:00.000”. The 3 candidates were “Sebastian Chapman”, “Lily Turner” and “Tin Chung”. Also the interviewer was “Shawn Micheal”

Step 2: display records from Company, Position and Interview table.

Step 3: COMMIT transaction.

Step 4: display records from Company, Position and Interview table.

Submission

Please submit your lab report in one doc file named “lastname-firstname-lab7.doc”. Please submit your lab report in one Word file to BB. You can use MS OneNote/snipping tool to capture and edit screenshots of the SQL statements and their results. Remember to add comments to your SQL statements to explain the purpose of the code blocks. This lab report is due by **Tuesday, 03/29, 02:00pm**.

The lab report should follow the template in lab 6 solutions. After each question, copy and paste your SQL statement, followed by the screenshot to show that your SQL statement has been successfully executed. Both SQL statement and the result should be visible in the screenshot. Remember to add comments to your SQL statements to explain the purpose of the code blocks. Also **add all the final table screenshots** at the end of the lab. Include Screen shots of the SQL Server Management Studio with your username which is there at the bottom right hand corner.